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|---------------------------------|-------------|----------------------|---------------------|------------------|
| APPLICATION NO.                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/585,302                      | 01/19/2007  | Young-Lak Kim        | 4949-06085587       | 2320             |
| 22429                           | 7590        | 04/14/2010           | EXAMINER            |                  |
| LOWE HAUPTMAN HAM & BERNER, LLP |             |                      | PHUONG, DAI         |                  |
| 1700 DIAGONAL ROAD              |             |                      | ART UNIT            | PAPER NUMBER     |
| SUITE 300                       |             |                      | 2617                |                  |
| ALEXANDRIA, VA 22314            |             |                      | MAIL DATE           | DELIVERY MODE    |
|                                 |             |                      | 04/14/2010          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                   |
|------------------------------|--------------------------------------|-----------------------------------|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/585,302 | <b>Applicant(s)</b><br>KIM ET AL. |
|                              | <b>Examiner</b><br>DAI A. PHUONG     | <b>Art Unit</b><br>2617           |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 19 January 2007.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 6-12 and 19-22 is/are allowed.

6) Claim(s) 1-3,13,14 and 16 is/are rejected.

7) Claim(s) 4,5,15,17 and 18 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 07/06/2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

**DETAILED ACTION**

*Information Disclosure Statement*

1. The references listed in the Information Disclosure Statement filed on 07/06/2006 have been considered by the examiner (see attached PTO-1449 form or PTO/SB/08A and 08B).

*Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (Pub. No.: 20050043046).

Regarding claim 13, Lee discloses a mobile communication system, comprising:

a synchronous mobile communication network ([0003], [0006], [0009]-[0012] and [0034]);

an asynchronous mobile communication network overlapping with the synchronous mobile communication network ([0007], [0030] and [0034]); and

a handover cell placed at a boundary between a synchronous mobile communication system and an asynchronous mobile communication system ([0030] and [0034]) and provided with a handover base station for transmitting a signal having the same frequency as that used in the asynchronous mobile communication system ([0030] and [0034]), wherein the mobile communication system is operated in such a way that, as a multi-mode multi-band mobile

communication terminal having an asynchronous modem unit and a synchronous modem unit passes through the handover cell area from an asynchronous mobile communication network area ([0035] to [0037]) and then moves into a synchronous mobile communication network area, the mobile communication terminal receives a signal transmitted from the handover base station, thus performing handover ([0038] and [0055] to [0063]).

Regarding claim 14, Lee discloses all limitations in claim 13. Further, Lee discloses the mobile communication system according wherein the signal transmitted from the handover base station includes scramble codes indicating information about a cell in which the mobile communication terminal is located ([0038] and [0055] to [0063]).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. 6704581) in view of Streter (U.S. 6456858).

Regarding claim 2, Park et al. disclose method of controlling a multi-mode multi-band mobile communication terminal for handover, the multi-mode multi-band mobile communication terminal being provided with an asynchronous modem unit (WCDMA) and a synchronous modem unit (IS-95 or IS-2000) and being capable of receiving signals from a synchronous mobile communication system during use of service provided by an asynchronous mobile

communication system in a mobile communication network in which the asynchronous and synchronous mobile communication systems coexist (Abstract, col. 4, lines 13-28. It is noted that the dual mode mobile station performs handoff from an asynchronous system to a synchronous system. Therefore, the dual mode mobile station includes an asynchronous modem unit (WCDMA) and a synchronous modem unit (IS-95 or IS-2000)), the method comprising:

the first step of, as the mobile communication terminal using the service provided by the asynchronous mobile communication system moves into a synchronous area, the asynchronous modem unit of the mobile communication terminal receiving a dummy pilot signal from the synchronous mobile communication system (col. 4, lines 13-57 and col. 6, lines 10-28 and col. 8, lines 10-32), driving the synchronous modem unit of the mobile communication terminal, searching for a cell in which to perform handover, notifying the asynchronous mobile communication system of results of a search for a cell in which to perform handover (col. 4, lines 13-57 and col. 6, lines 10-28 and col. 8, lines 10-32), and transmitting a channel assignment message to the synchronous modem unit when a handover command has been received from the asynchronous mobile communication system (col. 4, lines 13-57 and col. 6, lines 10-28 and col. 8, lines 10-32); and the third step of the synchronous modem unit achieving synchronization with the synchronous mobile communication system (col. 4, lines 13-57 and col. 6, lines 10-28 and col. 8, lines 10-32).

However, Park et al. do not disclose the second step of switching a vocoder and turning off the asynchronous modem unit.

In the same field of endeavor, Streter discloses the second step of switching a vocoder and turning off the asynchronous modem unit (Fig. 3, col. 10, line 47 to col. 11, line 24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Parker et al. by specifically the second step of switching a vocoder and turning off the asynchronous modem unit, as taught by Streter, the motivation being in order to establish a connection with the system.

Regarding claim 2, this claim is rejected for the same reason as set forth in claim 1.

6. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al. (U.S. 6704581) in view of Streter (U.S. 6456858) and further in view of Lee (Pub. No.: 20050043046).

Regarding claim 3, the combination of Park et al. and Streter disclose all limitation in claim 1. However, the combination of Park et al. and Streter do not disclose the mobile communication terminal control method wherein the dummy pilot signal has the same frequency as that used in the asynchronous mobile communication system.

In the same field of endeavor, Lee discloses the mobile communication terminal control method wherein the dummy pilot signal has the same frequency as that used in the asynchronous mobile communication system ([0056]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Parker et al. by specifically the mobile communication terminal control method wherein the dummy pilot signal has the same frequency

as that used in the asynchronous mobile communication system, as taught by Streter, the motivation being in order to search cells for handover between an asynchronous and a synchronous.

Regarding claim 16, this claim is rejected for the same reason as set forth in claim 3.

***Allowable Subject Matter***

7. Claims 4-5, 15, 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 6-12, 19-22 are allowed.

The following is an examiner's statement of reasons for allowed:

Regarding claim 6, the prior art record fails to anticipate or render obvious a method of controlling a multi-mode multi-band mobile communication terminal for handover, the multi-mode multi-band mobile communication terminal being provided with an asynchronous modem unit and a synchronous modem unit and being capable of receiving signals from a synchronous mobile communication system during use of service provided by an asynchronous mobile communication system in a mobile communication network, in which the asynchronous and synchronous mobile communication systems coexist and a handover cell having a preset size is placed at a boundary region between asynchronous and synchronous mobile communication system areas, the method comprising: *the first step of, as the mobile communication terminal using the service provided by the asynchronous mobile communication system moves into the synchronous area through the handover cell area, the asynchronous modem unit of the mobile communication terminal obtaining system information transmitted from a handover*

*base station in the handover cell area, driving the synchronous modem unit of the mobile communication terminal, and requesting the asynchronous mobile communication system to perform handover; the second step of the mobile communication terminal driving the synchronous modem unit and changing to an idle state; the third step of the asynchronous modem unit of the mobile communication terminal transmitting a channel assignment message to the synchronous modem unit when a handover command has been received from the asynchronous mobile communication system; the fourth step of the mobile communication terminal turning off the asynchronous modem unit and switching a vocoder; and the fifth step of the synchronous modem unit achieving synchronization with the synchronous mobile communication system.* Claims 8-12 are allowed because the claims are dependent directly or indirectly on claim 6.

Regarding claim 7, the prior art record fails to anticipate or render obvious a method of controlling a multi-mode multi-band mobile communication terminal for handover, the multi-mode multi-band mobile communication terminal being provided with an asynchronous modem unit and a synchronous modem unit and being capable of receiving signals from a synchronous mobile communication system during use of service provided by an asynchronous mobile communication system in a mobile communication network, in which the asynchronous and synchronous mobile communication systems coexist and a handover cell having a preset size is placed at a boundary region between asynchronous and synchronous mobile communication system areas, the multi-mode multi-band mobile communication terminal being capable of transmitting and receiving signals to and from the synchronous mobile communication system during use of service provided by the asynchronous mobile communication system, the method

*comprising: the first step of, as the mobile communication terminal using the service provided by the asynchronous mobile communication system moves into the synchronous area through the handover cell area, the asynchronous modem unit of the mobile communication terminal obtaining system information transmitted from a handover base station in the handover cell area, driving the synchronous modem unit of the mobile communication terminal, and requesting the asynchronous mobile communication system to perform handover; the second step of the mobile communication terminal driving the synchronous modem unit and changing to an idle state; the third step of the asynchronous modem unit of the mobile communication terminal transmitting a channel assignment message to the synchronous modem unit when a handover command has been received from the asynchronous mobile communication system; the fourth step of the synchronous modem unit achieving synchronization with the synchronous mobile communication system; and the fifth step of the mobile communication terminal turning off the asynchronous modem unit and switching a vocoder.* Claims 19-22 are allowed because the claims are dependent directly or indirectly on claim 7.

#### **Conclusion**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dai A Phuong/  
Examiner, Art Unit 2617  
Date: 04/9/2010